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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,453	06/05/2001	Varinder K. Kalra	CET-026177	5825
7590	11/21/2003		EXAMINER VORTMAN, ANATOLY	
John S. Beulick Armstrong Teasdale LLP One Metropolitan Sq., Suite 2600 St. Louis, MO 63102			ART UNIT 2835	PAPER NUMBER

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/874,453	KALRA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anatoly Vortman	2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-21 is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 7, 9, and 10, are rejected under 35 U.S.C. 102(b) as being anticipated by US/1,466,423 to Conrad.

Regarding claims 1, 4, and 7, Conrad disclosed (Fig. 2-6) a fuse comprising a fuse body (11) for receiving a fuse element assembly (Fig. 3), the fuse element assembly having opposite ends and a length therebetween, and the fuse element assembly including a fuse element (43, 48, 51-53) extending substantially the entire length between the opposite ends, said fuse body (11) comprising a first end, a second end spaced from the first end by a distance substantially equal to the length of the fuse element assembly and a bore extending through said body (11) between said first end and said second end, said bore comprising a clearing portion having a first cross sectional area and a positioning portion (15) having a second cross sectional area; said first cross sectional area different (larger) than said second cross sectional area; wherein said fuse element assembly (Fig. 3) situated in said bore between terminals (13, 14) enclosing the ends of the fuse body (11) (Fig. 4), said fuse element assembly comprising an outer dimension (41) substantially coextensive with said second cross sectional area, said outer dimension (41) substantially

centered within said first cross sectional area, thereby ensuring a clearance between said fuse element assembly and said fuse body (11) within said clearing portion, thus preventing the fuse element from contacting an interior surface of the clearing portion (Fig. 4, 5).

The functional recitations of claim 7: "configured to have a conductive end cap secured thereto" have not been given patentable weight because they are narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC § 112, 6th paragraph, or must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172; 388 O.G. 279. In the instant case there are no structural elements have been recited in the claim that would have warranted the accommodation of the end caps. The end caps have not been positively set forth in the claim, and therefore have not been treated as parts of the structure of the claimed device.

Regarding claim 2, Conrad disclosed that said clearing portion extends for a first length, said positioning portion (15) extends for a second length, said first length greater than said second length.

Regarding claims 3, 9, and 10, Conrad disclosed that said bore further comprising a conical guide portion (17) having a third length which is less than said first length or said second length, and intermediate said clearing portion and said positioning portion (15), said guide portion (17) further comprising a cross sectional area intermediate said first cross sectional area and said second cross sectional area (Fig. 2).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Conrad ('423).

Regarding claims 6 and 8, Conrad disclosed all of the claims limitations as apply to claims 1 and 7, respectively, but did not disclose that said fuse body (11) is fabricated from Alumina Zirconia.

Alumina Zirconia (ceramic) has been notoriously known in the fuse art at the time the invention was made as a well-suited material for manufacturing components of fuses. Therefore, it would have been obvious to a person of ordinary skill in the fuse art at the time the invention was made to select any suitable material, including said Alumina Zirconia ceramic, for making said fuse body of Conrad, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

5. Claims 5 and 11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Conrad in view of US/5,214,406 to Reese et al., (Reese).

Regarding claims 5 and 11, Conrad disclosed all of the claims limitations as apply to claims 3, 7, and 12, respectively, but did not disclose that said fuse body is substantially rectangular and has substantially square end surfaces.

Reese disclosed a fuse (Fig. 1-5) having a fuse body, which is substantially rectangular, and has substantially square end surfaces.

Since the inventions of Conrad and Reese are from the same field of endeavor (electrical fuses), the purpose of the rectangular fuse body disclosed by Reese would be recognized in the invention of Conrad.

It would have been obvious to a person of ordinary skill in the fuse art at the time the invention was made to produce said fuse body of Conrad in substantially rectangular shape as taught by Reese in order, for example, to facilitate mounting of the fuse.

#### ***Allowable Subject Matter***

6. Claims 12-21 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

regarding claims 12-21, claim 12 as amended recites: “a first end cap secured to said first end of said fuse body and electrically connected to said fuse element assembly; and a second end cap secured to said second end of said fuse body and electrically connected to said fuse element assembly”. The aforementioned limitations in combination with all remaining limitations of claim 12 are believed to render said claims 12-21 patentable over the art of record.

#### ***Response to Arguments***

8. Applicant's arguments filed on 10/02/03 have been fully considered but they are not persuasive.

Regarding independent claim 1, the Applicant contends that “Conrad describes a series of elements connected to one another in a fuse (38), none of which extend the length of the assembly”. The Examiner would like to direct the Applicant’s attention to the fact, that in the rejection the fuse element has been characterized by numerals (43, 48, 51-53), i.e. the fuse element of Conrad has been treated as consisting of several components connected in series, wherein said fuse element (43, 48, 51-53) is extending the entire length of the assembly (Fig. 3).

Furthermore, contrary to the Applicant’s position that “it is clear from Fig. 4 of Conrad that the ends of the sleeve (11) extend well beyond the length of the fuse (38)”, the Examiner would like to direct the Applicant’s attention to said Fig. 4, which shows that on the contrary, the member (57) of the fuse element assembly (38) extends even slightly beyond the end of the fuse body (11).

The Examiner believes that claim 1 reads on Conrad patent as stated in the rejection above.

Regarding independent claim 7, the arguments are believed to be moot in view of the new grounds of rejection (see rejection above).

Regarding independent claim 12, the arguments are moot due to the allowance of the claim.

In conclusion, regarding claims 5 and 11, the Applicant has presented arguments regarding the prima facie case of obviousness (i.e. that references has not been properly combined, because they teach different types of fuses (p. 7, lines 18+ of the amendment). Please note, that the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed

combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975).

However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 USPQ 545 (CCPA) 1969. Also, as decided in *In re O'Farrel*, 7 USPQ 2d, 1673-1681, Fed. Cir. 1988, obviousness does not require absolute predictability of success. Indeed, for many inventions that seem quite obvious, there is no absolute predictability of success until the invention is reduced to practice. There is always at least a possibility of unexpected results that would then provide an objective basis for showing that the invention, although apparently obvious, was in law nonobvious. *In re Merck & Co.*, 800 F.2d at 1098, 231 USPQ at 380; *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1461, 221 USPQ 481, 488 (Fed. Cir. 1984); *In re Papesch*, 315 F.2d 381, 386-387, 137 USPQ 43, 47-48 (CCPA 1963). For obviousness under 35 U.S.C. 103, all that is required is a reasonable expectation of success. *In re Longi*, 759 F.2d 887, 897, 225 USPQ 645, 651-652 (Fed. Cir. 1985); *In re Clinton*, 527 F.2d 1226, 1228, 188 USPQ 365, 367 (CCPA 1976).

Therefore, in view of the above, the Examiner believes that combination of references in 35 USC 103 rejection was proper.

### ***Conclusion***



9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 703-308-7824. The examiner can normally be reached on Monday-Friday, between 9:30am and 6:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg can be reached on 703-308-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-305-3431.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Anatoly Vortman  
Primary Examiner  
Art Unit 2835



A.V.